

## Abstract of the Disclosure

5 A lightweight active mirror. A first layer has a front side and a backside. A second layer has a front side and a backside. The backside of the second layer faces the front side of the first layer. A reflective surface is on the front side of the second layer. The reflective surface is operable to reflect desired wavelengths of electromagnetic radiation. A plurality of electroactive actuator strips arranged between the first layer and the second layer are operable to alter a curvature of the mirror. Electrical connectors are operable to cause the electroactive strips to alter the curvature of the mirror. A plurality of stiffening elements interconnected with at least one of the first layer and the second layer are operable to stiffen the mirror. A plurality of shape retaining elements attached to at least one of the first layer and the second layer are operable to deploy the mirror and to bias the mirror in a desired position.